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The Comorbidity of Diabetes and Depression among Latinas: A Literature Review

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Diabetes remains one of the most prevalent and threatening health disparities in the United States today. Increased societal recognition of depression as a crucial facet of mental health/wellness has presupposed escalating diagnosis rates. Diabetes and depression commonly co-occur and go undetected in primary care settings. Women and Latinos/as have higher rates of either diabetes or depression than non-Hispanic Whites. The aim of the study is to determine the role of diabetes and depression among Latinas in the United States and to determine limitations in existing literature. Expanding integrated health care systems with prevention and treatment programs for diabetes and depression is necessary. This is pertinent to Latinas because of specific factors that impact their likelihood of developing these diseases. Frequent depression screenings throughout the lifespan are warranted to monitor rates of depression. More research must be done to assess the severity of the comorbidity. Through reviewing the literature, it was found the relationship between diabetes and depression among Latinas is bidirectional and more research is necessary to better understand this relationship, which is provoked by factors specific to the Latina lifestyle. There is a lack of research conducted on Latinas and few studies focused on this population.

Key words: Diabetes, depression, comorbidity, and Latino/a

Introduction

Background: Why Look at Diabetes and Depression?

Diabetes remains one of the most prevalent health disparities in the United States today (Selvin, 2014). It is estimated nearly 21 million adults in the U.S. acquired diabetes by 2010, which represents approximately 9.3 percent of the U.S. population compared to 5.5 percent two decades ago (Selvin, 2014). The prevalence of diabetes in adults has doubled and is expected to rise significantly (Selvin, 2014). Certain factors, such as lack

of education and low socioeconomic status also play roles in the rates of diabetes development (Altun, 2014). Not maintained, diabetes can have serious medical consequences, such as high blood pressure, strokes, and kidney disease (ADA, 2016). Given these consequences, diabetes represents a threat to achieving overall wellbeing.

Health care professionals' increased attention on the rising prevalence of depression has turned it into one of the most widely discussed and most burdensome diseases, according to the World Health Organization (Kessler, 2003). Health care professionals are more open to discussing depression with their patients, which insinuates larger numbers of men and women are seeking medical treatment for the disease (Kessler, 2003). Research has shown depression is a disease that commonly co-occurs with other illnesses—causing comorbidities (Kessler, 2003), approximately 64 percent of a 5,500 respondent subgroup reporting this (Kessler, 2003). With this in mind, depression could be utilized as an indicator disease to determine evidence of other mental/health related disparities, and therefore can be positively utilized.

Latina/os and Mental/Physical Health Disparities

Minority groups tend to experience higher rates of mental and physical health disparities than non-Hispanic Whites (Myers, 2015). This may be because of the unique stressors people of minority status experience such as: discrimination, low socioeconomic status, or recent immigration status (Myers, 2015). There are multiple models suggesting psychosocial stressors could play a large role in the onset and development of specific health disparities such as high blood pressure and hypertension (Dressler, 2005). This collection of models emphasizes the role stress plays in the development of

depression and anxiety, which in turn has implications regarding higher rates of health disparities (Dressler, 2005).

The disparity in emphasis of depression and depressive symptoms among Latinas/os is rapidly increasing, and thus, mental health care services are continuously needed to monitor this growing problem. It is unclear whether Latinas/os experience depression or depressive symptoms at similar rates to their non-Hispanic White counterparts. Because many more studies are conducted on non-Hispanic Whites, it is important to consider this population as a frame of reference for these diseases' prevalence. While one study found domestic Latina/os, or those currently living in the United States, tend to experience similar rates of mental health disparities as non-Hispanic Whites (Lopez, 2012), another study contradicts this by saying Latinas/os experience a greater number of depressive symptoms than non-Hispanic Whites (Leung, 2014). Although this review was limited by this discrepancy in data, there were sources that elaborated on these points, thus explaining what *is* known about the issue.

Leung (2014) attributes his finding that Latinas/os experience greater numbers of depressive symptoms to problems with acculturation, language barriers, and in some cases intimate partner violence, particularly among Latina women. Both Lopez and Leung's results indicate depression tends to go untreated more among Latinos than non-Hispanic Whites and this is typically a result of not following up with care after diagnosis. This suggests the need for improvement in the areas of screening—particularly with regards to the sensitive cultural needs of Latinas/os—and following-up with practicing clinicians. Following, there are many reasons why Latinas/os are less likely than non-Hispanic Whites to follow up after a depression diagnosis, and it could be

partially because of the difference between Latino and Western worldviews. Latinas/os seek support from family members—*familismo*—rather than choosing professional guidance for serious problems, and therefore assume a role of independence in their diagnosis that ultimately leads to a prolonged period of depression. This could also be a result of a lack of formalized health care, or knowledge about options or resources for aid (Leung, 2014). This indicates a need for cultural sensitivity with the needs of Latinas/os in health care settings.

Physical disparities, particularly diabetes, remain prevalent among the Latina/os in the U.S., and they are often better understood than mental health disparities, which make them easier to detect widely across such a large population. Latinas/os are the largest minority group in the United States, accounting for 17 percent of the country's population (Schneiderman, 2014). Diabetes prevalence within subgroups ranges from 10.2-18.3 percent and therefore is alarmingly present among current U.S. Latinas/os. Schneiderman's findings are similar to those of Pineda Olivera (2007), who compared Latinas/os' high rates of diabetes with those of non-Hispanic Whites and found greater rates among Latinas/os. The urgency for detecting comorbid diabetes and depression is escalated by the idea that the longer a person lives with diabetes, the more likely the person is to develop depression (Pineda Olivera, 2007). In light of the rapidly growing minority presence, which is up to 38 percent and projected to comprise 56 percent of the United States population by 2060, the aforementioned findings necessitate an increase in health disparity research—particularly into socioeconomic or other conditions that may predispose Latinas/os to higher comorbidities with mental illnesses (U.S. Census Bureau, 2015).

Women versus Men

Women experience higher rates of depression: a rate almost twice as likely as men (Alegria, 2004 & Kim, 2015). Men and women develop depression at different rates for a variety of reasons. Alegria (2004) found discrimination provided a worthy indicator of major depressive disorder (MDD), and therefore determined focus groups where men encountered the least amount of discrimination consequently faced the least chance of developing MDD. Likewise, women who faced larger amounts of discrimination were at high risk for developing the disorder (Alegria, 2004).

Additionally, diabetes is found more commonly among women than men (Kim, 2015). Kim (2015) found diabetic risk factors (which ranged between 1 and 5 percent greater than men's) were more prevalent in the women's section of the sample than in the men. Women are also at an increased risk of contracting gestational diabetes during pregnancy (Poulakos, 2015). Gestational diabetes is unique to women and often presupposes developing type 2 diabetes due to the similarities in insulin resistance and tendency for women affected. Ultimately about 16 percent of pregnant women are affected by gestational diabetes (Poulakos, 2015). With the unique risk factors women face, more research is warranted to identify the relationship between women and higher rates of diabetes.

Potential Causes of Comorbidity

Diabetes and depression proportionately function with each other. As Latinas/os with diabetes become more depressed, they reportedly maintain less control over the diabetes (Pineda Olivera, 2007 & Fitten, 2007 & Gross, 2004). Metabolic control as exhibited in a diabetes diagnosis, for example, causes emotional strain for the patient and can lead to a greater likelihood of depression. As the individual is forced to put stronger

restraints on his or her lifestyle, it is likely the adjustment will be overwhelming and will impact the individual's mental health. This is particularly true in the case of Latina women because of socioeconomic status, cultural values, and reluctance to follow-up with health care professionals post-diagnosis (Gross, 2004). Other possible explanations for the increased risk in comorbidity include a dysregulation of the immune system, low intake or impaired metabolism of fatty acids, and increased risk of obesity, which all are impacted by a strict diabetic diet as well as the sedentary lifestyle that often accompanies a depression diagnosis (Knol, 2006).

The added risk of gestational diabetes causes specific complications when assessing the comorbidity of diabetes and depression. Women of Latino descent are typically at a two to four percent risk increase of developing gestational diabetes compared to their non-Hispanic White counterparts (Chasen-Taber, 2010). Being that women who develop gestational diabetes during pregnancy are at a higher risk for developing type 2 diabetes later on, this is a necessary factor to consider. Implications of providing stronger preventative care programs aiding potential cases of gestational diabetes prior to pregnancy would limit the risk of acquiring type 2 diabetes in the mother and prevent greater chances of obesity and diabetes development in the children (Chasen-Taber, 2010).

Comorbidity of Diabetes and Depression among Latinas

Using various depression screenings, it can be inferred depression represents a strong risk factor for diabetes. In a sample size of 1,662 participants with gestational diabetes diagnoses, it was found that 9 percent had an Edinburgh Postnatal Depression Scale (EPDS) score of >12 out of a possible 30—with scores >10 typically signaling

possible depression—at the antenatal period of the pregnancy (Chasan-Taber, 2010). Based off of this sample, Hispanic women had a greater tendency to experience depressive symptoms than their non-Hispanic counterparts, at 16 percent and 7 percent respectively. Using other depression screening tools, it was concluded rates of depression ranged from around 25 to 50 percent. It was presupposed there is variability in this range due to differing demographic information, which can be reflective of existing depressive symptoms (Chasan-Taber 2010). Another study looked at 92 Hispanic women with type 2 diabetes that were living in Chicago (Munoz, 2014). The study found that 52 percent of these women struggled with mild depressive symptoms—scores above 16—according to the Center for Epidemiologic Studies Depression scale (CES-D), which ranges from 0 to 60 with scores greater than 16 indicating at least mild depression (Radloff, 1977). Thirty-eight percent of this same sample size struggled with severe depressive symptoms—scores above 23. This can point to a correlation between diabetes diagnoses and depressive symptomology (Munoz, 2014). In a recent meta-analysis, it was found the prevalence of depression is nearly doubled when a person has type 2 diabetes versus not. Across nine studies, it was concluded 37 percent of adults with depression or extreme depressive symptoms would acquire type 2 diabetes (Knol, 2006).

Comorbid diabetes and depression is a strong risk for Latinas in the United States. Limited research shows the comorbidity of diabetes and depression is prevalent among Latinas specifically (Kim, 2015 & Gross, 2005 & Mier, 2008). With Latina women being more prone toward developing both diabetes and depression independently, it provides reason to believe the potential to develop both diseases simultaneously is strong. Future research necessitates emphasizing Latinas as a target population because of their

likelihood of developing comorbid conditions, particularly depression and other chronic health conditions including, but not limited to: diabetes mellitus, asthma, arthritis, gout, coronary heart disease, and stroke (Kim, 2015).

Awareness of the comorbidities among Latinas allows practitioners to effectively isolate diseases separately and to take necessary precautions in primary care treatment and prevention practices. Gross (2005) emphasizes it is necessary for Latinas to be at the forefront of treatment procedures for both diabetes and depression because of their greater likelihood of developing these diseases. Additionally, Gross (2005) goes on to caution the association between poor glycemic control and depression is significant and preventing development of these conditions would control the potential for future complications, to which Latinas are prone.

Implications for Health Care Social Workers

Eliminating Risk of Comorbid Diabetes and Depression

There are multiple ways to approach prevention and treatment in order to reduce the risk of acquiring comorbid diabetes and depression. One of the most necessary ways to reduce the likelihood is to prevent diabetes and depression onsets separately. By doing so, healthcare practitioners can limit diagnoses of either disease in one individual.

Diabetes is brought on by having a strong genetic predisposition to the disease, belonging to certain ethnic minority groups, or leading a sedentary lifestyle among other factors (Preventing Diabetes, 2014). It follows that in order to reduce the risk of acquiring diabetes through controllable factors, patients should maintain a healthy body weight through regular physical activity and healthy eating (Preventing Diabetes, 2014).

Through maintaining low stress levels, both diabetes and depression can be prevented.

With the strain of a restricted diet for diabetics comes additional stress that the diet

should be maintained. Depression can be caught early on by maintaining average to low levels of stress on a regular basis (Depression, 2015). This goes along with seeking help in times of crisis and taking necessary steps to balance healthy self-esteem. However, depression prevention can be difficult to achieve because of the delicate nature of mental disorders (Depression, 2015). Despite this, health care social workers can take an active role in these preventative steps for healthy living.

As Latinas develop depression, it is important for health care social workers and behavioral health specialists to also screen for diabetes, or vice versa. This would potentially conclude screening is one of, if not the most, necessary tools to eliminate the comorbidity or mitigate the symptoms of either disease. In order to reduce comorbid diabetes and depression, it is imperative to treat patients for depression and diabetes conjointly, which indicates screening should be a priority for all healthcare providers. This would determine whether one, both, or neither of these diseases could be treated.

Prevention: Firmer Standards for Diabetes/Depression Screening Among Latinas

Screening for both diabetes and depression is one of the most effective ways to prevent the onset of diabetes and depression among Latina women. Within the realm of preventative care for both diabetes and depression, there are many options for reducing risk of each disease individually, and doing so will hopefully allow practitioners to isolate comorbid conditions and treat each disease separately (Kim, 2015). Frequency of screening for Latinas ultimately begins with regular visits to primary care clinics and regular follow-up after diagnoses (Lopez, 2012). Diabetes and depression screenings should be frequently mandated throughout the lifespan in order to accurately assess the possibility of developing these diseases. This is particularly relevant for women who

have had or can be at a risk of developing gestational diabetes or type 2 diabetes later on (Chasen-Taber, 2010). Routine screenings are essential for pregnant women throughout pregnancy and afterwards because of the increased risk of depression in pregnant and postpartum women, and therefore should be addressed with regular check-ins (Chasen-Taber, 2010). It is absolutely necessary for screenings to occur continuously throughout the lifespan in order to catch the diseases in their developing state and potentially prevent other health disparities in the process. By carrying out diabetes and depression screenings, it is possible to prevent the development of comorbid disorders. For example, when depression is diagnosed, then it would be important to offer women preventative services for diabetes. Moreover, a diagnosis of diabetes is also important and if diagnosed, it should be treated immediately in order to avoid the development of depression. Frequent screenings can be made easier to accomplish through the utilization of health care social workers in health care settings.

Integrated Treatment Programs

Isolating the prevalence of comorbid diabetes and depression among Latinas has significant implications regarding planning of treatment programs. The integrated model of care should be embraced more frequently within healthcare. The integrated model embraces the idea of combining mental health, substance abuse, and primary care clinics into one overall service, which promotes a holistic view on healthcare services. The strength in this model lies in the practitioners. Both mental health and primary health practitioners, often including social workers, can communicate to develop a holistic treatment plan that addresses the possibility of various health disparities existing across the care continuum. It is argued this model represents the most effective way to diagnose multiple comorbid disorders (What is Integrated Care, 2003). This model assists

healthcare providers in diagnosing depression and diabetes, making it effective in allowing treatment to be done at one centralized location. It would increase attendance to a patient's mental health therapy services and their primary care physician, ultimately making it easier for patients to access care. By providing an outlet for patients to access both mental and physical health services, the likelihood of patients using both increases, thus allowing health care providers to monitor overall wellbeing.

Limitations of the Literature

Despite a surplus of research relevant to diabetes and depression diagnoses among minority groups broadly, there were few studies focusing on the comorbidity of diabetes and depression among Latinas. Much of existing literature points to both male and female sexes rather than separating them out to analyze this problem. This overall limitation also made it difficult to accurately assess the prevalence of both diseases in a single sample size, and consequently intensified the dilemma in claiming a high comorbidity rate of depression and diabetes in Latinas. This requires more research to be done with the population of minority women, and also in bridging the gap between researching physical illnesses such as diabetes, as well as mental illnesses—depression. There were very few studies that chose to look at mental health variables at all, such as depression and depressive symptoms, in combination with physical health disparities like diabetes. It is not common health disparities are combined with mental health disparities in the literature, and with more research that is willing to bridge that gap, a wealth of possibilities are opened. This warrants more studies to be done that incorporate mental health into a general health assessment. With more research, particularly quantitative studies, the task of assessing the number of women with the comorbidity will be streamlined.

Additionally, because of the changing nature of the depression diagnosis while including studies that looked exclusively at depressive symptoms, it is difficult to assess the validity of studies that choose to look at depression. Specifically, it became problematic when discerning whether studies were choosing to look at the definition of depression as categorical vs. spectrum, and many of the depression screening tools reflect that distinction. Although it would be difficult to assume the mental health field would be able to create one comprehensive, but also effective, screening tool, it would be much more likely each study could look at the specific questions within each tool and speak to the individuality of those questions. This could make depression assessment a more effective process than as it currently stands.

Conclusion

Because women of ethnic minorities tend to be at a greater risk of developing diabetes or depression, this warrants studies to be done solely on Latinas within the United States. Continuing, comorbid diabetes and depression is a serious public health concern, particularly among Latina women due to their growing representation in the United States, unique cultural stance, and various lifestyle factors. The added variable of gestational diabetes being a risk factor among women makes comorbid diabetes and depression a significant health concern. The implications to prevent comorbid diabetes and depression suggest preventing individual diseases can limit the potential comorbidity. However, targeting both diseases can eliminate risk through acknowledging that both diseases function closely alongside one another with overlap in their symptomology. Frequent depression and diabetes screenings (as advocated by health care providers and better education to patients about the risks involved in these diseases) throughout the lifespan can catch the onset of these diseases and prevent comorbidity. More research

must be done on this population set to determine the degree to which the comorbidity exists. It is also necessary to consider the varying depression screenings when compiling statistics due to the inconsistency in results that having different depression screenings would provide. Additionally, the integrated model of healthcare can serve as a method of targeting both mental health and primary care, in an effort to prevent depression and diabetes together. This provides a more effective way for Latinas to seek healthcare, which has the potential to increase follow-up care appointments, thus increasing overall wellbeing and holistic health.

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